

***Mycobacterium tuberculosis*, Strain H37Rv, Cell Wall Fraction**

Catalog No. NR-14828

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Contributor:

BEI Resources or NIH - TB Vaccine Testing and Research Materials Contract

Manufacturer:

Karen Dobos, Ph.D., Colorado State University, Fort Collins, Colorado and NIH - TB Vaccine Testing and Research Materials Contract

Product Description:

NR-14828 is a preparation of the cell wall fraction of *Mycobacterium tuberculosis*, strain H37Rv and contains proteins and non-protein compounds such as mAGP.

The culture was grown to late-log phase in glycerol-alanine-salts medium, washed with PBS pH 7.4, and inactivated by gamma irradiation. The bacilli were suspended at a concentration of 2 g/mL in PBS containing 8 mM EDTA, DNase, RNase, and a proteinase inhibitor tablet, and broken in a French Press pressure cell at 4°C. Unbroken cells were removed by low speed (3,000 x g) centrifugation. The cell wall was isolated by centrifugation at 27,000 x g for one hour and washed two times in PBS. The final cell wall pellet was suspended and dialyzed in 10 mM ammonium bicarbonate, quantified by BCA protein assay for protein content, and frozen.

Material Provided:

Each vial contains approximately 1 mg of NR-14828 provided as a frozen pellet.

Note: NR-14828 is soluble in 100 mM to 500 mM aqueous buffered salt solutions, such as phosphate buffered saline. A 10 mM ammonium bicarbonate solution can also be used. Cell wall fractions may not fully solubilize, but a uniform suspension can be achieved with bath sonification.

Packaging/Storage:

NR-14828 was packaged aseptically in cryovials. The product is provided frozen on dry ice and should be stored at -80°C or colder immediately upon arrival. Freeze-thaw cycles should be avoided.

Citation:

Acknowledgment for publications should read "The following reagent was obtained through BEI Resources, NIAID, NIH: *Mycobacterium tuberculosis*, Strain H37Rv, Cell Wall Fraction, NR-14828."

Biosafety Level: 2

Appropriate safety procedures should always be used with

this material. Laboratory safety is discussed in the following publication: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health. Biosafety in Microbiological and Biomedical Laboratories. 5th ed. Washington, DC: U.S. Government Printing Office, 2009; see www.cdc.gov/biosafety/publications/bmb15/index.htm.

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References:

1. Cole, S. T., et al. "Deciphering the Biology of *Mycobacterium tuberculosis* from the Complete Genome Sequence." Nature 393 (1998): 537-544. PubMed: 9634230. Erratum in: Nature 396 (1998): 190-198.
2. Hirschfield, G. R., M. McNeil and P. J. Brennan. "Peptidoglycan-Associated Polypeptides of *Mycobacterium tuberculosis*." J. Bacteriol. 172 (1990): 1005-1013. PubMed: 2105289.

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